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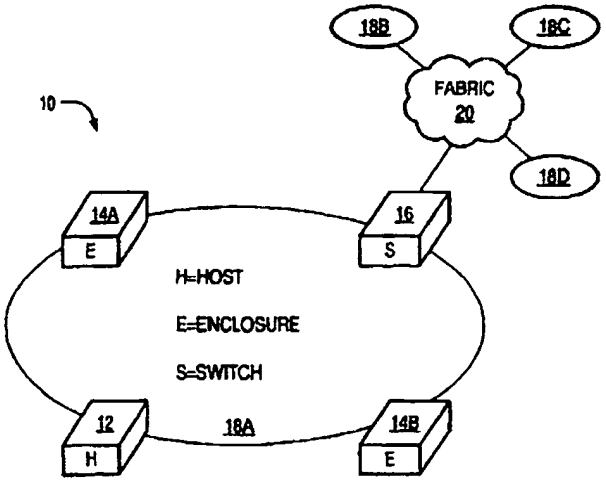
(54) Abstract Title
Methods for building and using a network device database

(57) Several methods are described for building and using a network device database. The network includes multiple enclosures, and each enclosure houses at least one device (e.g., a data storage device). The network may be, for example, a storage area network. One embodiment of a method for deriving the addresses of all devices of the network includes repeating the following steps for each enclosure of the network. A command is issued to the enclosure requesting information comprising device identifications (IDs) of all devices within the enclosure. A portion of an address of the enclosure is concatenated with each device ID to form the addresses of all devices within the enclosure. The network may include one or more Fibre Channel Arbitrated Loops (FC-ALs). In this case, the addresses of the enclosures and the devices coupled FC-ALs are fabric addresses. Each enclosure may include a small computer system interface (SCSI) enclosure services (SES) unit. In this case, the issuing step may include issuing a command to the SES unit of an enclosure requesting a page of information including device IDs of all devices within the enclosure. The page may be an SES-defined element descriptor page. A method for handling a fault condition within a device of the above described network is also described and includes building a database including addresses of all enclosures and devices of the network.



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